What is claimed is:

1.   A video data coding/decoding apparatus comprising:

an encoder dividing a partition partitioned by a data partitioning technique into certain blocks, channel-coding the divided block data and transmitting a bit stream; and

a decoder channel-decoding the bit stream received from the encoder so as to restore a video data.

2.   The apparatus of claim 1, wherein the encoder divides the partition into a plurality of blocks according to a predetermined block size.

3.   The apparatus of claim 1, wherein the encoder performs a channel coding to insert channel coding information into the partitioned partition data with reference to an index of a channel coding rate table (CCRT).

4.   The apparatus of claim 3, wherein the channel coding is performed in the unit of byte.

5.   The apparatus of claim 4, wherein the number of channel coding bytes is computed by the following equation:

the number of channel coding bytes = Trunc(I*CCRT[index]), wherein 'I' indicates an information byte, CCRT[index] indicates a channel coding rate, and Trunc indicates a truncation operator.

6.   The apparatus of claim 1, wherein the encoder comprises:

a variable length coder source-coding the video data, partitioning it into a plurality of partitions, and dividing each partition into certain blocks;

a channel coder channel-coding the partition data of the divided block; and

a partition mixer mixing a partition table storing size information of the plurality of partitions and the plurality of partitions, so as to form a bit stream.

7.   The apparatus of claim 6, wherein the bit stream comprises:

a slice start code (SSC);

a partition table storing the size information of each partition;

a first partition, a header portion, having the information bits of the channel-coded video data;

a second partition having motion vector (MV) information;

a third partition having a discrete cosine transform(DCT) coefficient; and

a zero-bit inserting unit for byte-alignment.

8.   The apparatus of claim 1, wherein the decoder comprises:

a partition demixer partitioning a bit stream into a plurality of partitions with reference to a partition table contained in the received bit stream;

a channel decoder channel-decoding each partition data according to an index of the CCRT and outputting the source-coded partition; and

mixing the source-coded partitions and performing a source-coding on the partitions so as to restore an original video data.

9.   The apparatus of claim 1, wherein the encoder comprises:

a variable length coder source-coding a video data and partitioning it to a plurality of partitions, and dividing each of the partitioned partitions into certain blocks;

a channel coder channel-coding the partition data of the divided blocks;

partition mixer mixing the plurality of channel-coded partitions; and

a marker emulation eliminator checking whether a marker emulation has occurred in the mixed partitions and performing a marker emulation avoiding operation.

10. The apparatus of claim 9, wherein the channel coder inserts an information bit termination bit at the end of the information bit of the partition 3 so as to know how many zero bits have been inserted.

11. The apparatus of claim 9, wherein the marker emulation eliminator generates a window which has less bits than the marker bits and checks whether a marker emulation has occurred between the partition data.

12. The apparatus of claim 11, wherein the marker emulation eliminator inserts a predetermined value into the portion next to the portion matching the window in order to avoid a marker emulation when a marker emulation occurs between the partition data.

13. The apparatus of claim 12, wherein the marker emulation eliminator transposes the information bit and the channel coding bit in the partition data when a marker emulation occurs between the data and the marker.

14.   The apparatus of claim 1, wherein the decoder comprises:

an insertion bit eliminator searching a marker while removing bits which have been inserted to avoid a marker emulation from the received bit stream.

a petition demixer demixing the bit stream into a plurality of partitions when a marker is discovered;

a channel decoder computing a total bit amount, an information bit amount and a channel coding bit amount of each partitioned partition and channel-decoding the partition data according to the index of the CCRT; and

a variable length decoder mixing the partitions which have been channel-decoded by the channel decoder and performing a source-coding on it so as to restore an original video data.

15.   The apparatus of claim 14, wherein the total bit amount is a bit amount between the markers in case of the partition 1 and the partition 2.

16.   The apparatus of claim 14, wherein the channel bit amount is a value obtained by subtracting the number of the information bytes (I) from the number of the total bytes (Total), and the number of the information bytes (I) is an integer value of 'Total/(CCRT[index]+1.

17.   The apparatus of claim 14, wherein in case of one partition is made with a plurality of blocks and certain blocks correspond to a predetermined block size (BLS), the information bit is the block size and an additional bit is Trunc(BLS*CCRT[index]).

18.   The apparatus of claim 17, wherein in case that one partition is made with a plurality of blocks and certain blocks are smaller than the BLS, a channel coding bit amount is a value obtaining by subtracting the information bits (small-info) from the number of residual bytes (small_Total) by taking the partition as 'BLS+Trunc(BLS*CCRT[index]), and the information bit (small-info) is an integer value of small_Total/(percent+1).

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19.   The apparatus of claim 14, wherein the total bit amount is equivalent to a bit amount except for the information bit termination bit inserted at the rear end of the DCT partition and the zero-bit inserted for byte-alignment, in case of the partition 3.

20.   A video data coding method comprising the steps:

partitioning a source-coded video data into a plurality of partitions and dividing each partition into certain blocks according to a predetermined block size;

inserting a channel coding byte into each divided block and channel-coding a partition data; and

mixing a partition table storing size information of the partition and the channel coded partitions so as to form a bit stream.

21.   The method of claim 20, wherein the bit stream comprises:

a slice start code (SSC);

a partition table storing the size information of each partition;

a first partition, a header portion, having the information bits of the channel-coded video data;

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a second partition having motion vector (MV) information;

a third partition having a discrete cosine transform(DCT) coefficient; and

a zero-bit inserting unit for a byte-aligning.

22.   The method of claim 20, wherein the channel coding is performed in the unit of byte.

23.   The method of claim 22, wherein the number of the channel coding bytes is computed by the following equation:

the number of channel coding bytes = $Trunc(I*CCRT[index])$, wherein 'I' indicates an information byte, CCRT[index] indicates a channel coding rate, and Trunc indicates a truncation operator.

24.   A video data decoding method comprising the steps:

partitioning a bit stream into a plurality of partitions with reference to a partition table included in the received bit stream;

channel-coding each partition data according to an index of a CCRT and outputting the source-coded partition; and

mixing the source-coded partitions and performing a source-decoding on the partitions so as to restore an original video data.

25.   The method of claim 24, wherein the bit stream comprises:

a slice start code (SSC);

a partition table storing the size information of each partition;

a first partition, a header portion, having the information bits of the

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channel-coded video data;

a second partition having motion vector (MV) information;

a third partition having a discrete cosine transform(DCT) coefficient; and

a zero-bit inserting unit for a byte-aligning.

26. A video data coding method comprising the steps:

inserting a marker into a sour-coded video data, partitioning it into a plurality of partitions, and dividing each partition into certain block according to a predetermined block size;

channel-coding the partition data of the divided blocks;

mixing the plurality of channel-coded partitions; and

checking whether a marker emulation has occurred in the mixed partitions and performing a process to avoid a marker emulation.

27. The method of claim 26, wherein the channel coding is performed in the unit of byte.

28. The method of claim 27, wherein the channel coding step comprises:

computing channel coding information with reference to an index of a channel coding rate table (CCRT); and

inserting the computed channel coding byte into the partition data of each block and performing a channel coding.

29. The method of claim 28, wherein the channel coding information is

performed in the unit of byte and computed by the following equation:

the number of channel coding bytes = Trunc(I*CCRT[index]), wherein 'I'

indicates an information byte, CCRT[index] indicates a channel coding rate, and

Trunc indicates a truncation operator.

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30.   The method of claim 28, further comprising the step of inserting an

information bit termination bit of a certain bit at the end of the information bit of the

partition 3 so as to recognize a zero bit during the channel coding process.

10   31.   The method of claim 28, wherein the process for avoiding a

marker emulation comprises:

generating a window having less bits than the marker bit;

checking whether a marker emulation has occurred between the partition

data while sliding the generated window; and

15   inserting a certain value at the very next portion of a portion which

matches the window to avoid a marker emulation, when the marker emulation is

generated between partition data.

32.   The method of claim 31, further comprising the step of transposing

20   the information bit and the channel coding bit in the partition data when the marker

emulation is generated between the data and the marker.

33.   A video data decoding method comprising:

searching a marker while removing bits inserted to avoid a marker

25   emulation from a received bit stream;

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demixing the bit stream to a plurality of partitions when a marker is discovered;

computing a total bit amount, an information bit amount and a channel coding bit amount of each partitioned partition and channel-decoding the partition data according to an index of the CCRT; and

mixing the channel-decoded partitions, and performing a source-decoding on the partitions so as to restore an original video data.

34. The method of claim 33, wherein the total bit amount is a bit amount between the markers, in case of the partition 1 and the partition 2.

35. The method of claim 33, wherein the channel bit amount is a value obtained by subtracting the number of the information bytes (I) from the number of the total bytes (Total), and the number of the information bytes (I) is an integer value of 'Total/(CCRT[index]+1.

36. The method of claim 33, wherein in case that one partition is made with a plurality of blocks and certain blocks correspond to a predetermined block size (BLS), the information bit is the block size and an additional bit is Trunc(BLS*CCRT[index]).

37. The apparatus of claim 33, wherein in case that one partition is made with a plurality of blocks and certain blocks are smaller than the BLS, a channel coding bit amount is a value obtaining by subtracting the information bits (small-info) from the number of residual bytes (small_Total) by taking the partition

as 'BLS+Trunc (BLS*CCRT[index]), and the information bit (small-info) is an integer value of small_Total/(percent+1).

38.   The apparatus of claim 33, wherein the total bit amount is equivalent to a bit amount except for the information bit termination bit inserted at the rear end of the DCT partition and the zero-bit inserted for a byte-aligning, in case of the partition 3.